



FortiExtender™

3G/4G LTE Wireless WAN Extenders



FortiExtender

FortiExtender 20B, 20D, 40D and 100B

3G/4G LTE Wireless WAN Extenders

Improve Business Continuity with a 3G/4G LTE Backup WAN Connection

A reliable WAN connection is essential for the modern enterprise. With businesses increasingly relying on cloud computing and remote applications, WAN connectivity must be always-on. Ideal for the distributed enterprise, retail location and SMB, FortiExtender 3G/4G LTE Wireless WAN Extenders works in conjunction with the FortiGate Network Security Platform to provide a 3G/4G LTE WAN connection as a backup to the primary wired WAN link. The advanced FortiOS software on the FortiGate facilitates rapid failover from the wired connection to the FortiExtender 3G/4G LTE Wireless WAN connection in the event of a wired failure, ensuring the enterprise location stays online and operational.

Wireless WAN as a Primary WAN Connection

Enterprises are increasingly taking advantage of wireless WAN technology not only as a backup for their wired WAN connections, but also as the primary WAN connection in locations such as; small branch offices, retail “pop-up” stores, Point of Sale systems and kiosks. A FortiExtender 3G/4G LTE Wireless WAN Extender enables a reliable and stable connection to support these applications.

Key Features & Benefits

Integrates into the FortiGate Network Security Platform	Single pane of glass management of the wired and wireless WAN connections and security reduces Total Cost of Ownership for your WAN.
Designed for Outdoor Use	Can be located to maximize 3G/4G LTE signal strength, without using lossy antenna cables or limited strength USB modems.
Power over Ethernet	Can be located up to 100m from the FortiGate appliance or network switch, to optimize wireless signal strength.
Enterprise Performance	4G LTE is the latest high-speed wireless WAN technology, significantly outperforming legacy redundant WAN connections such as dial-up.

3G/4G LTE Wireless WAN connection for Distributed Enterprise, Branch Office, Retail and SMB

- Enables placement of 3G/4G LTE Wireless modem outdoors or close to a window, improving signal strength
- Provides a secondary failover WAN link to improve business continuity
- Provides a primary WAN link for retail POS, remote ATM machines and remote kiosk type systems
- Reduces WAN TCO through single pane of glass management integration with the FortiGate Network Security Platform
- Data usage management and alerts to monitor data usage and avoid overcharges
- PoE powered



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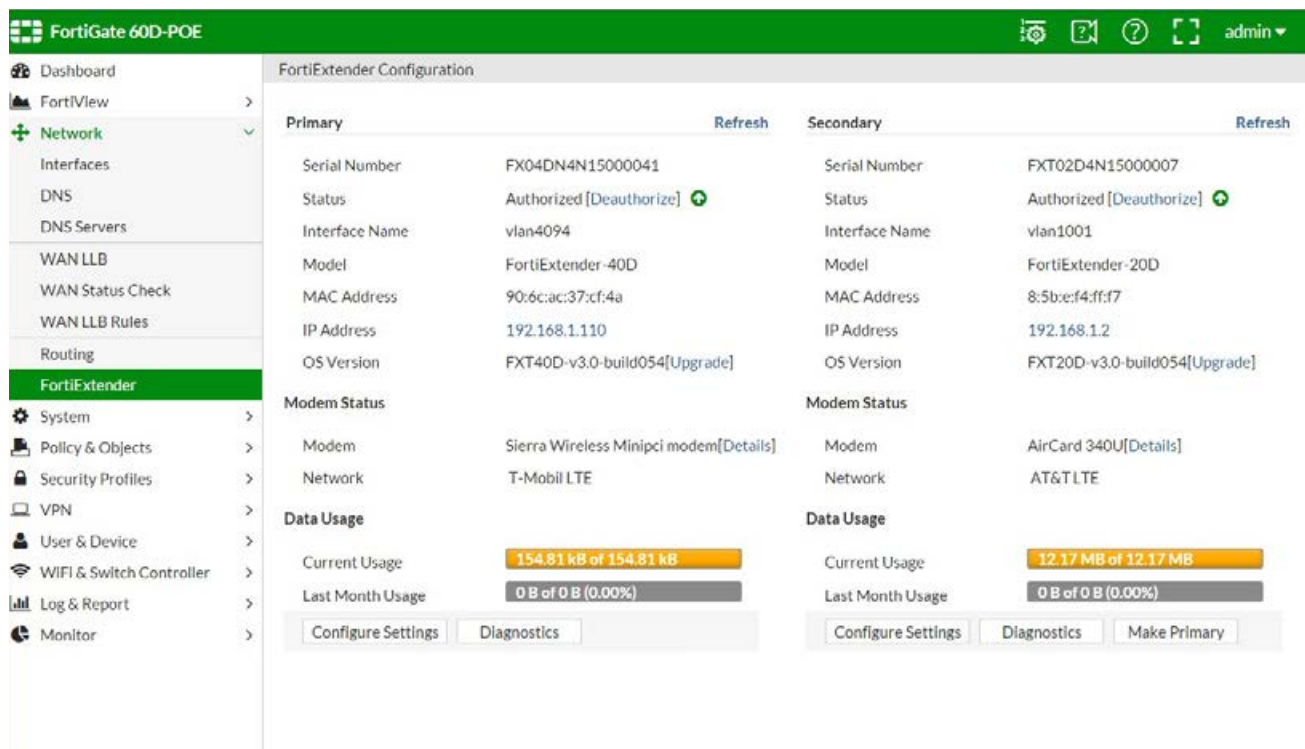
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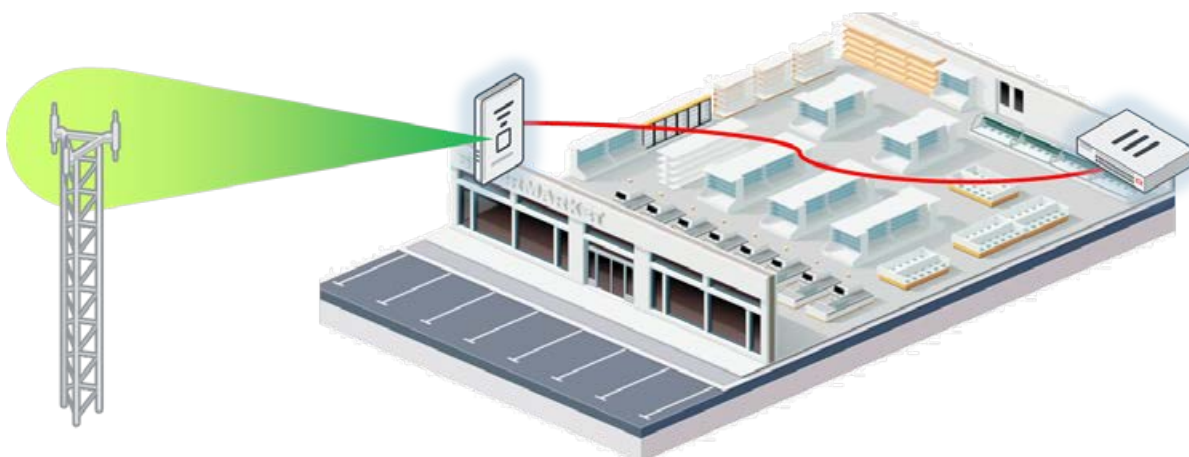
FortiExtenders are a true plug-and-play device. Once connected to the FortiGate, they appear as a regular network interface in FortiOS, providing single pane of glass management. This enables administrators to manage the connection as well as implement complete UTM security and control, just like any other FortiGate interface. In addition, FortiOS will display data quota usage on the wireless WAN interface, providing complete visibility of the connection to ensure costly carrier data limits are not exceeded. The superior management, security and control of the FortiExtender ultimately reduces the Total Cost of Ownership for your WAN.

Flexible Deployment for Optimal Signal Strength

FortiExtender devices have been engineered to be installed in the best possible location to achieve maximum 3G/4G LTE wireless signal strength. The unit is powered using Power over Ethernet with both indoor and outdoor models available, enabling the device to be located for optimal signal strength, even up to 100m away from the FortiGate or Network Switch.



FortiOS Web-based GUI — complete FortiExtender visibility and control.



FortiExtender can be placed near a window or outdoors for optimal signal strength.

SPECIFICATIONS

	FEX-20B	FEX-20D
Hardware and System		
Modem Support	USB	USB
Number of Antennas	N/A	N/A
Power over Ethernet (PoE) Powered	IEEE 802.3af (9.5)	IEEE 802.3af (6W) (Not including USB)
Mounting Options	Wall Mount / Desktop	Wall Mount / Desktop
Type	Indoor	Indoor
Dimensions		
Height x Width x Length (inches)	1 x 3.8 x 4.9	1.75 x 7 x 11.4 (Security cover on); 1.75 x 7 x 6 (w/o security cover)
Height x Width x Length (mm)	25 x 97 x 124	45 x 180 x 290 (Security cover on); 45 x 180 x 155 (w/o security cover)
Weight	0.7 lb (0.3 kg)	0.8 lb (0.36 kg)
Environment		
Operating Temperature	23–122°F (-5–50°C)	32–131°F (0–55°C)
Storage Temperature	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)
Humidity	5–95%	0–95%
Certifications		
CB	IEC 60950-1:2005	IEC 60950-1:2005
UL	UL 60950-1, CSA C22.2 No. 60950-1-07	UL 60950-1, CSA C22.2 No. 60950-1-07
FCC	FCC Part 15, Class B and Subpart C and EICES-003	FCC Part 15, Class B and Subpart C and EICES-003
CE	RR&TTE Directive 1999 / 5 / EC EN 300 328 / EN 301 489 / EN 301 893 / EN 50385 EU Directive 2004 / 108 / EC EMC EU Directive 2006 /95 / EC LVD EN 55022 / EN 55024 / EN 61000	RR&TTE Directive 1999 / 5 / EC EN 300 328 / EN 301 489 / EN 301 893 / EN 50385 EU Directive 2004 / 108 / EC EMC EU Directive 2006 /95 / EC LVD EN 55022 / EN 55024 / EN 61000
IC	Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2 RSS102, Issue 4	Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2 RSS102, Issue 4
Directives	Low Voltage Directive • RoHS	Low Voltage Directive • RoHS

	FEX-40D	FEX-100B
Hardware and System		
Modem Support	Internal	USB
Number of Antennas	2 SMA External	N/A
Power over Ethernet (PoE) Powered	IEEE 802.3af (10W)	IEEE 802.3af (7.3W)
Mounting Options	Wall Mount / Desktop	Pole and wall mount
Type	Indoor	Outdoor / IP55
Dimensions		
Height x Width x Length (inches)	1.75 x 7 x 6 (not including antenna length)	5.7 x 10.6 x 1.9
Height x Width x Length (mm)	45 x 180 x 155 (not including antenna length)	145 x 268 x 48
Weight	0.83 lb (0.38 kg)	1 lb (454 g)
Environment		
Operating Temperature	32–131°F (0–55°C)	32–131°F (0–55°C)
Storage Temperature	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)
Humidity	0–95%	0–95%
Certifications		
CB	IEC 60950-1:2005	IEC 60950-1:2005
UL	UL 60950-1, CSA C22.2 No. 60950-1-07	UL 60950-1, CSA C22.2 No. 60950-1-07
FCC	FCC Part 15, Class B and Subpart C and EICES-003	FCC Part 15, Class B and Subpart C and EICES-003
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USB MODEM SUPPORT: FEX-20B, 20D, AND 100B

Please see the FortiExtender reference manual for a complete list of supported USB modems: <http://docs.fortinet.com/fext/reference>

INTERNAL MODEM SUPPORT: FEX-40D

	FEX-40D-NAM	FEX-40D-INTL
Regional Compatibility	United States, Canada and Mexico	Europe, Middle East, Central America (except Mexico), South America and Australia
Internal Modem Specifications		
Modem Model	Sierra Wireless EM7355	Sierra Wireless EM7305
LTE	Bands: 2, 4, 5, 13, 17, 25	Bands: 1, 3, 7, 8, 20
UMTS/HSPA+	Bands: 1, 2, 4, 5, 8	Bands: 1, 2, 5, 8
WCDMA	Bands: 1, 2, 5, 8	
CDMA 1xRTT/EV-DO Rev A	BC0, BC1, BC10	
GSM/GPRS/EDGE	Quad Band 850/900/1800/1900 MHz	Quad Band 850/900/1800/1900 MHz
Module Certifications	FCC, PTCRB, NCC	CE, GCF, NCC, FCC
Diversity	Yes	Yes
MIMO	Yes	Yes
GNSS Bias	Yes	Yes
XLTE (band bonding)	Yes	Yes
Advanced Radio Technology	2 x 2 MIMO — Enables industry leading data speeds Receiver Equalization — Improves performance in noisy and highly mobile environments Receiver Diversity — Improves performance at cell edges and in buildings	
Advanced Software Features	Connection status Auto-connect Auto-select network Data byte count Network profile Self-diagnostics Power management — Standby & hibernate selective suspend DIAG & AT Commands IMEI located on outer box and device for simple activation by Verizon Private IP SIM support L2 and L3 Tunnel modes via VLAN and CAPWAP for fast and flexible deployments Single pane of glass management via FortiGate and FortiManager	
SIM Features	Dual-SIM support with intelligent fail-over algorithms SIM size: Mini-SIM type 2FF SIM security cover IMEI printed at bottom of enclosure for ease of activation	
Carrier Certifications	Verizon Wireless (in process) Verizon Wireless DMNR PTCRB for use with AT&T and most North American carriers (in process)	

Certification notes:

In general, you can activate the FEX-40D internal modem with most worldwide carriers, then simply install a SIM card and create a wireless WAN link.

The built-in modem offers quad-band connectivity to HSPA+ networks worldwide and expected to work in 3G mode worldwide, subject to carrier support.

There are exceptions however, as some carriers control the access to their network to specific carrier certified devices. These carriers allow only certified modem IMEI numbers on their network and have the ability to disable the LTE connection after a period of time.

The following carriers are known to require additional testing to obtain certification. Please reach out to the Fortinet sales team and to evaluate your specific regional requirements: Brazil (VIVO), USA (Sprint), New Zealand, Arabian Peninsula (all carriers), UK (All carriers).

ORDER INFORMATION

Product	SKU	Description
FortiExtender 20B	FEX-20B	Indoor Broadband Wireless WAN Extender for use with USB modems. 1x GE RJ45 PoE port and 1x USB port for 3G/4G LTE modem (not supplied). 802.3af PoE powered with included injector.
	FC-10-X0020-311-02-DD	8x5 FortiCare Contract
	FC-10-X0020-247-02-DD	24x7 FortiCare Contract
FortiExtender 20D	FEX-20D	Indoor Broadband Wireless WAN Extender with customer supplied 3G/4G USB modem, 1x PoE GE port.
	FC-10-X0021-311-02-DD	8x5 FortiCare Contract
	FC-10-X0021-247-02-DD	24x7 FortiCare Contract
FortiExtender 40D-NAM	FEX-40D-NAM	Indoor Broadband Wireless WAN Extender with embedded dual SIM 3G/4G LTE modem for North American Carriers. 1x GE RJ45 PoE port. 802.3af PoE powered with included injector.
	FC-10-X0041-311-02-DD	8x5 FortiCare Contract
	FC-10-X0041-247-02-DD	24x7 FortiCare Contract
FortiExtender 40D-INTL	FEX-40D-INTL	Indoor Broadband Wireless WAN Extender with embedded dual SIM 3G/4G LTE modem for European and Australian Carriers. 1x GE RJ45 PoE port. 802.3af PoE powered with included injector.
	FC-10-X0040-311-02-DD	8x5 FortiCare Contract
	FC-10-X0040-247-02-DD	24x7 FortiCare Contract
FortiExtender 100B	FEX-100B	Outdoor Broadband Wireless WAN Extender for use with USB modems. 1x GE RJ45 PoE port and 1x USB port for 3G/4G LTE modem (not supplied). 802.3af PoE powered with included injector.
	FC-10-X0100-311-02-DD	8x5 FortiCare Contract
	FC-10-X0100-247-02-DD	24x7 FortiCare Contract

Note: FortiExtender requires a FortiGate running FortiOS 5.2.4 or above to serve as its controller.



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